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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/796,809

03/08/2004

Steven T. Kirsch

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EXAMINER

HOANG, HIEU T

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/796,809	Applicant(s) KIRSCH, STEVEN T.	
	Examiner HIEU T. HOANG	Art Unit 2152	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 08 March 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-26 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-26 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 08 March 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>01/05/07, 05/09/05, 01/20/05, 09/13/04</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. This office action is in response to the communication filed on 03/08/2004.
2. Claims 1-26 are pending and presented for examination.

Claim Objections

3. Claims 1-26 are objected to because of the following informalities:
4. The use of mail and e-mail is inconsistent in the claims.
5. Claim 2 recites "a mail from address" in step f). It is not clear whose address the claim is referring to. Furthermore, there is no antecedent basis for the limitation. Applicant is required to check for similar limitations that lack antecedent basis in the claims, e.g., claim 2, a) reciting "a sender" while c) reciting "the sender". Appropriate correction is required.
6. The claims recite terms such as "IP", "DNS". Such terms have to be spelled out in the claims.
7. Correction is required.

Claim Rejections - 35 USC § 112

8. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.
9. Claims 2, 5, 7, 11, 14, 16, 20, 22, 24 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

10. Claims 2, 11 and 20 recite "sendmail," "final IP address," "final domain name." It is unclear what these terms means.
11. Claims 5, 14, 22 and 7, 16, 24 recite "whitelist/blacklist" It is unclear what the symbol "/" means.
12. Correction is required.

Claim Rejections - 35 USC § 102

13. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

14. Claims 1-26 are rejected under 35 U.S.C. 102(e) as being anticipated by Liu et al. (US 2005/0015455, hereafter Liu).
15. For claim 1, Liu discloses in a network, a method of processing received e-mail messages comprising:
 - a) identifying information about an origin of a received e-mail message (fig. 2, step 201, receive an email and check its sender's address), the origin-identifying information based on data from at least one item of data in the message or at least one

item of data used to send the message, the origin-identifying information including at least one of the following:

- i) an actual sender of the message (fig. 2, step 201, sender's email address);
 - ii) a final IP address; iii) a final domain name;
 - iv) a normalized reverse DNS lookup of the final IP address; or
 - v) an IP path used to send the message;
- b) categorizing whether the received message is solicited or unsolicited e-mail by using statistics based on information about the origin of the message (fig. 2, step 207, check whether the sender is in the black list or white list based on pre-established statistics...); and
- c) processing the received message based on its categorization (fig. 2, case a, b, or c follows).

16. For claim 2, Liu further discloses the actual sender is identified by combining at least two of the following pieces of identifying information: a) an e-mail address used by a sender (fig. 2, sender's email address); b) a display name used by the sender; c) the final IP address used by the sender; d) the final domain name used by the sender ([0043], domain name); e) the normalized reverse DNS lookup of the final IP address; f) a mail from address ([0047], sender's mails to a same recipient); g) a domain name used by the sender; h) a name of client software used by the sender; i) user-agent; j) timezone; k) source IP address; l) sendmail version used by a first receiver; m) the IP

path used to route the message; n) a range of IP addresses; o) owner data stored in databases; or p) a normalized mail from address.

17. For claim 3, Liu further discloses using statistics compiled at at least one database to categorize whether the received message is solicited or unsolicited e-mail (fig. 2, black list, white list).

18. For claim 4, Liu further discloses computing a score indicating a likelihood that the received message is unsolicited e-mail using statistics compiled at the at least one database ([0020], number of messages from the same sender is a score or is used to calculate a score of spam likelihood).

19. For claim 5, Liu further discloses sending information about received messages to the at least one database (fig. 1, data center 102), the information including at least two of the following: a) information identifying the actual sender (fig. 2, sender's address, black list, white list); b) whether the actual sender is included on a recipient's whitelist (fig. 2, black list, white list); c) whether the actual sender is included on a recipient's blacklist (fig. 2, black list, white list); d) information identifying the final IP address; e) whether the final IP address is included on the recipient's whitelist; f) whether the final IP address is included on the recipient's blacklist; g) information identifying the final domain name; h) whether the final domain name is included on the recipient's whitelist; i) whether the final domain name is included on the recipient's

blacklist; j) information identifying the normalized reverse DNS lookup of the final IP address; k) whether the normalized reverse DNS lookup of the final IP address is included on the recipient's whitelist; l) whether the normalized reverse DNS lookup of the final IP address is included on the recipient's blacklist; m) information identifying the IP path; n) whether the IP path is included on the recipient's whitelist; o) whether the IP path is included on the recipient's blacklist; p) whether the message could be categorized locally; or q) whether a recipient changed a whitelist/blacklist status of the message.

20. For claim 6, Liu further discloses requesting the at least one database to send a recipient statistics about origin-identifying information (fig. 2, query the database to get whether the sender is on black or white list).

21. For claim 7, Liu further discloses storing origin-identifying information from received messages including at least one of the following: a) a total number of messages sent ([0020]); b) a number of messages sent over a first predetermined time period; c) a total number of messages sent to recipients in a network who have included the origin on a whitelist; d) a number of messages sent to recipient in the network who have included the origin on the whitelist over a second predetermined time period; e) a number of recipients who have included the origin on the whitelist; f) a total number of times a recipient changed the origin's whitelist/blacklist status; g) a number of times a recipient changed the origin's whitelist/blacklist status over a third predetermined time

period; h) a total number of messages sent to recipients in the network who have not included the origin on the whitelist; i) a number of messages sent to recipients in the network who have not included the origin on the whitelist over a fourth predetermined time period; j) a total number of unique recipients in the network who have received at least one message from the origin; k) a total number of messages sent to unique recipients in a network who have included the origin on a whitelist; or l) a total number of messages sent to unique recipients in the network who have not included the origin on the whitelist.

22. For claim 8, Liu further discloses compiling statistics includes at least one of the following: a) determining a ratio of a first number of e-mail messages sent by the origin to recipients in the network who have included the origin on the whitelist in a predetermined time period divided by a second number of e-mail messages sent by the origin to recipients in the network in the predetermined time period; b) determining a ratio of a first number of recipients in the network who have included the origin on the whitelist divided by a second number of unique recipients in the network who received e-mails from the origin in the predetermined time period; c) determining a ratio of a first number of times in a predetermined time interval a message from the origin was moved from a whitelist to a blacklist divided by a second number of times a message from the origin was moved from a blacklist to a whitelist; d) determining a ratio of a first number of times in a predetermined time interval a message from the origin was moved from a blacklist to a whitelist divided by a second number of times a message from the origin

was moved from a blacklist to a whitelist; e) determining a ratio of a first number of unique users within the network who whitelisted the origin within a predetermined time period compared to a second number of unique users within the network who blacklisted the origin within the predetermined time period; f) determining a ratio reflecting whether the origin sends a majority of messages to recipients who have included the origin on the whitelist; g) determining a ratio reflecting a first number of wanted messages sent by the origin compared to a second number of unwanted or total messages sent by the origin; h) determining a difference between a first number of expected messages sent by the origin and a second number of unexpected messages sent by the origin; i) determining a difference between a first number of times a user whitelisted a message from the origin and a second number of times a user blacklisted a message from the origin; j) determining a difference reflecting whether the origin sends a majority of messages to known recipients; k) converting any of the above ratios or differences to a score indicating the likelihood the message is unsolicited e-mail; or l) applying the score to the appropriate messages in the spam folder ([0020], identify all emails from a sender are spam if the score is higher than a threshold).

23. For claim 9, Liu further discloses setting a predetermined threshold for accepting messages based on statistics associated with the origin-identifying information ([0020], predetermined threshold of spam likelihood).

24. For claim 19. In a network, a method for categorizing received e-mail messages comprising:

a) collecting information about an origin of an e-mail message, the origin-identifying information including at least one of the following: i) an actual sender; ii) a final IP address; iii) a final domain name; iv) a normalized reverse DNS lookup of the final IP address; or v) an IP path used to send the message (fig. 2, step 201, receive an email and check its sender's address); and

b) compiling statistics at at least one database about the origin based on the origin-identifying information, wherein the statistics are used to categorize whether the received message is solicited or unsolicited ([0020], score indicating that the sender is spammer if the score is higher than a predetermined threshold).

25. Claims 10-18 are rejected for the same rationale given in claims 1-9 respectively.

26. Claim 20 is rejected for the same rationale given in claim 2.

27. Claims 21-26 are rejected for the same rationale given in claims 4-9 respectively.

Conclusion

28. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure:

- Chao et al. US 2004/0128355.
- Riemers US 6,615,242.
- Chadwick et al. US 2004/0210640.
- Goodman et al. US 2005/0021649.

29. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Hieu T. Hoang whose telephone number is 571-270-1253. The examiner can normally be reached on Monday-Thursday, 8 a.m.-5 p.m., EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Bunjob Jaroenchonwanit can be reached on 571-272-3913. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 2152

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

HH

/Bunjob Jaroenchonwanit/
Supervisory Patent Examiner, Art Unit 2152